

SEQUENCE LISTING

<110> Machida, Sachiko
Hayashi, Kiyoshi
Tokuyasu, Ken
Sakakibara, Yoshikiyo
Matsunaga, Shigeru

<120> A METHOD TO PRODUCE A RECEPTOR CHIP USING BIOTINYLATED PROTEIN

<130> 690115.401C1

<140> US
<141> 2004-01-26

<150> JP 2002-256691
<151> 2002-09-02

<150> JP 2003-304624
<151> 2003-08-28

<150> US 10/653,684
<151> 2003-09-03

<160> 10

<170> PatentIn version 3.1

<210> 1
<211> 639
<212> DNA
<213> Homo sapiens (aortic endothelial cell)

<220>
<221> CDS
<222> (1)..(639)
<223>

<400> 1
tcc cag gtg tct gac ctc cta aca caa gag caa gca aac cta act cac 48
Ser Gln Val Ser Asp Leu Leu Thr Gln Glu Gln Ala Asn Leu Thr His
1 5 10 15

cag aaa aag aaa ctg gag gga cag atc tca gcc cg 96
Gln Lys Lys Lys Leu Glu Gly Gln Ile Ser Ala Arg Gln Gln Ala Glu
20 25 30

gaa gct tca cag gag tca gaa aac gaa ctc aag gaa atg ata gaa acc 144
Glu Ala Ser Gln Glu Ser Glu Asn Glu Leu Lys Glu Met Ile Glu Thr
35 40 45

ctt gct cgg aag ctg aat gag aaa tcc aaa gag caa atg gaa ctt cac 192
Leu Ala Arg Lys Leu Asn Glu Lys Ser Glu Glu Gln Met Glu Leu His

50	55	60	
cac cag aat ctg aat ctc caa gaa aca ctg aag aga gta gca aat tgt			240
His Gln Asn Leu Asn Leu Gln Glu Thr Leu Lys Arg Val Ala Asn Cys			
65	70	75	80
tca gct cct tgt ccg caa gac tgg atc tgg cat gga gaa aac tgt tac			288
Ser Ala Pro Cys Pro Gln Asp Trp Ile Trp His Gly Glu Asn Cys Tyr			
85	90	95	
cta ttt tcc tcg ggc tca ttt aac tgg gaa aag agc caa gag aag tgc			336
Leu Phe Ser Ser Gly Ser Phe Asn Trp Glu Lys Ser Gln Glu Lys Cys			
100	105	110	
ttg tct ttg gat gcc aag ttg ctg aaa att aat agc aca gct gat ctg			384
Leu Ser Leu Asp Ala Lys Leu Leu Lys Ile Asn Ser Thr Ala Asp Leu			
115	120	125	
gac ttc atc cag caa gca att tcc tat tcc agt ttt cca ttc tgg atg			432
Asp Phe Ile Gln Gln Ala Ile Ser Tyr Ser Ser Phe Pro Phe Trp Met			
130	135	140	
ggg ctg tct cgg agg aac ccc agc tac cca tgg ctc tgg gag gac ggt			480
Gly Leu Ser Arg Arg Asn Pro Ser Tyr Pro Trp Leu Trp Glu Asp Gly			
145	150	155	160
tct cct ttg atg ccc cac tta ttt aga gtc cga ggc gct gtc tcc cag			528
Ser Pro Leu Met Pro His Leu Phe Arg Val Arg Gly Ala Val Ser Gln			
165	170	175	
aca tac cct tca ggt acc tgt gca tat ata caa cga gga gct gtt tat			576
Thr Tyr Pro Ser Gly Thr Cys Ala Tyr Ile Gln Arg Gly Ala Val Tyr			
180	185	190	
gcg gaa aac tgc att tta gct gcc ttc agt ata tgt cag aag aag gca			624
Ala Glu Asn Cys Ile Leu Ala Ala Phe Ser Ile Cys Gln Lys Lys Ala			
195	200	205	
aac cta aga gca cag			639
Asn Leu Arg Ala Gln			
210			

<210> 2
<211> 213
<212> PRT
<213> Homo sapiens (aortic endothelial cell)

<400> 2

Ser Gln Val Ser Asp Leu Leu Thr Gln Glu Gln Ala Asn Leu Thr His
1 5 10 15

Gln Lys Lys Lys Leu Glu Gly Gln Ile Ser Ala Arg Gln Gln Ala Glu
20 25 30

Glu Ala Ser Gln Glu Ser Glu Asn Glu Leu Lys Glu Met Ile Glu Thr
35 40 45

Leu Ala Arg Lys Leu Asn Glu Lys Ser Lys Glu Gln Met Glu Leu His
50 55 60

His Gln Asn Leu Asn Leu Gln Glu Thr Leu Lys Arg Val Ala Asn Cys
65 70 75 80

Ser Ala Pro Cys Pro Gln Asp Trp Ile Trp His Gly Glu Asn Cys Tyr
85 90 95

Leu Phe Ser Ser Gly Ser Phe Asn Trp Glu Lys Ser Gln Glu Lys Cys
100 105 110

Leu Ser Leu Asp Ala Lys Leu Leu Lys Ile Asn Ser Thr Ala Asp Leu
115 120 125

Asp Phe Ile Gln Gln Ala Ile Ser Tyr Ser Ser Phe Pro Phe Trp Met
130 135 140

Gly Leu Ser Arg Arg Asn Pro Ser Tyr Pro Trp Leu Trp Glu Asp Gly
145 150 155 160

Ser Pro Leu Met Pro His Leu Phe Arg Val Arg Gly Ala Val Ser Gln
165 170 175

Thr Tyr Pro Ser Gly Thr Cys Ala Tyr Ile Gln Arg Gly Ala Val Tyr
180 185 190

Ala Glu Asn Cys Ile Leu Ala Ala Phe Ser Ile Cys Gln Lys Lys Ala
195 200 205

Asn Leu Arg Ala Gln
210

<210> 3
<211> 393

<212> DNA

<213> Homo sapiens (aortic endothelial cell)

<220>

<221> CDS

<222> (1)..(393)

<223>

<400> 3

cct tgt ccg caa gac tgg atc tgg cat gga gaa aac tgt tac cta ttt 48
Pro Cys Pro Gln Asp Trp Ile Trp His Gly Glu Asn Cys Tyr Leu Phe

1 5 10 15

tcc tcg ggc tca ttt aac tgg gaa aag agc caa gag aag tgc ttg tct 96
Ser Ser Gly Ser Phe Asn Trp Glu Lys Ser Gln Glu Lys Cys Leu Ser
20 25 30ttg gat gcc aag ttg ctg aaa att aat agc aca gct gat ctg gac ttc 144
Leu Asp Ala Lys Leu Leu Lys Ile Asn Ser Thr Ala Asp Leu Asp Phe
35 40 45atc cag caa gca att tcc tat tcc agt ttt cca ttc tgg atg ggg ctg 192
Ile Gln Gln Ala Ile Ser Tyr Ser Phe Pro Phe Trp Met Gly Leu
50 55 60tct cgg agg aac ccc agc tac cca tgg ctc tgg gag gac ggt tct cct 240
Ser Arg Arg Asn Pro Ser Tyr Pro Trp Leu Trp Glu Asp Gly Ser Pro
65 70 75 80ttg atg ccc cac tta ttt aga gtc cga ggc gct gtc tcc cag aca tac 288
Leu Met Pro His Leu Phe Arg Val Arg Gly Ala Val Ser Gln Thr Tyr
85 90 95cct tca ggt acc tgt gca tat ata caa cga gga gct gtt tat gcg gaa 336
Pro Ser Gly Thr Cys Ala Tyr Ile Gln Arg Gly Ala Val Tyr Ala Glu
100 105 110aac tgc att tta gct gcc ttc agt ata tgt cag aag aag gca aac cta 384
Asn Cys Ile Leu Ala Ala Phe Ser Ile Cys Gln Lys Lys Ala Asn Leu
115 120 125aga gca cag 393
Arg Ala Gln
130

<210> 4

<211> 131

<212> PRT

<213> Homo sapiens (aortic endothelial cell)

<400> 4

Pro Cys Pro Gln Asp Trp Ile Trp His Gly Glu Asn Cys Tyr Leu Phe

1

5

10

15

Ser Ser Gly Ser Phe Asn Trp Glu Lys Ser Gln Glu Lys Cys Leu Ser
20 25 30

Leu Asp Ala Lys Leu Leu Lys Ile Asn Ser Thr Ala Asp Leu Asp Phe
35 40 45

Ile Gln Gln Ala Ile Ser Tyr Ser Ser Phe Pro Phe Trp Met Gly Leu
50 55 60

Ser Arg Arg Asn Pro Ser Tyr Pro Trp Leu Trp Glu Asp Gly Ser Pro
65 70 75 80

Leu Met Pro His Leu Phe Arg Val Arg Gly Ala Val Ser Gln Thr Tyr
85 90 95

Pro Ser Gly Thr Cys Ala Tyr Ile Gln Arg Gly Ala Val Tyr Ala Glu
100 105 110

Asn Cys Ile Leu Ala Ala Phe Ser Ile Cys Gln Lys Lys Ala Asn Leu
115 120 125

Arg Ala Gln
130

<210> 5
<211> 126
<212> PRT
<213> Artificial Sequence

<220>

<223> Biotinylation motif for biotinyling a protein in E. Coli

<400> 5

Met Lys Leu Lys Val Thr Val Asn Gly Thr Ala Tyr Asp Val Asp Val
1 5 10 15

Asp Val Asp Lys Ser His Glu Asn Pro Met Gly Thr Ile Leu Phe Gly
20 25 30

Gly Gly Thr Gly Gly Ala Pro Ala Pro Ala Gly Gly Ala Gly Ala

35

40

45

Gly Lys Ala Gly Glu Gly Glu Ile Pro Ala Pro Leu Ala Gly Thr Val
50 55 60

Ser Lys Ile Leu Val Lys Glu Gly Asp Thr Val Lys Ala Gly Gln Thr
65 70 75 80

Val Leu Val Leu Glu Ala Met Lys Met Glu Thr Glu Ile Asn Ala Pro
85 90 95

Thr Asp Gly Lys Val Glu Lys Val Leu Val Lys Glu Arg Asp Ala Val
100 105 110

Gln Gly Gly Gln Gly Leu Ile Lys Ile Gly Asp Leu Glu Leu
115 120 125

<210> 6

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Biotinylation motif for biotinyinating a protein in E. Coli

<400> 6

Gly Leu Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu Trp His Glu
1 5 10 15

<210> 7

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Biotinylation motif for biotinyinating a protein in E. Coli

<400> 7

Lys Ile Gly Asp Pro
1 5

<210> 8

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Biotinylation motif for biotinyinating a protein in E. Coli

<400> 8

Lys Leu Trp Ser Ile
1 5

<210> 9

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Recognition sequence used to purify an exogenous protein

<400> 9

Ile Glu Gly Arg
1

<210> 10

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Recognition sequence used to purify an exogenous protein

<400> 10

Asp Asp Asp Asp Lys
1 5